

Appl. No. 10/536,564

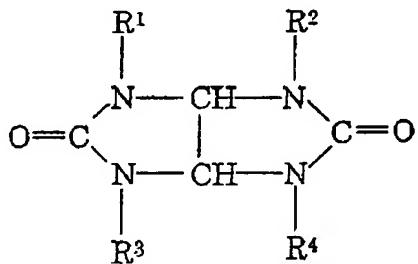
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SEP 01 2006Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 to 17. (canceled).

Claim 18. (new) A black galvanized steel sheet comprising:  
a galvanized steel sheet;  
a black coating layer formed on the galvanized steel sheet;  
a composite coating layer formed on the black coating layer  
and containing a phosphate ion, a vanadate ion, a metal ion,  
an  $\alpha$ ,  $\beta$ -unsaturated carboxylic acid and a material comprising an  
unsubstituted or substituted glycoluril monomer, said material  
being selected from the group consisting of monomers; a polymer  
compound of the monomer; a condensation product of the monomer; a  
mixture comprising the monomer, the polymer compound and the  
condensation product, wherein the monomer is represented by the  
formula



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wherein R<sup>1</sup> to R<sup>4</sup> are identical or different and are hydrogen, C<sub>n</sub>H<sub>2n+1</sub>, C<sub>n</sub>H<sub>2n</sub>OH or C<sub>n</sub>H<sub>2n</sub>OC<sub>m</sub>H<sub>2m+1</sub>, wherein m and n are integers from 1 to 4; and

an organic resin layer formed on the composite coating layer.

**Claim 19. (new)** The black galvanized steel sheet according to claim 18, wherein the black coating layer is formed by a blackening treatment of the surface of the galvanized steel sheet.

**Claim 20. (new)** The black galvanized steel sheet according to claim 18, wherein the black coating layer has a thickness of 0.01 to 0.5  $\mu$ m.

**Claim 21. (new)** The black galvanized steel sheet according to claim 18, wherein the composite coating layer has a coating weight of 0.02 to 1 mg/m<sup>2</sup>.

**Claim 22. (new)** The black galvanized steel sheet according to claim 18, wherein the metal ion in the composite coating layer is at least one metal ion selected from the group consisting of a magnesium ion, a zinc ion, a manganese ion, and an aluminum ion.

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**Claim 23. (new)** The black galvanized steel sheet according to claim 18, wherein the composite coating layer is formed by applying a treatment solution on the black coating layer, the treatment solution containing a phosphate ion, a vanadate ion, a metal ion, an  $\alpha$ ,  $\beta$ -unsaturated carboxylic acid and the material comprising an unsubstituted or substituted glycoluril monomer.

**Claim 24. (new)** The black galvanized steel sheet according to claim 23, wherein the metal ion in the treatment solution is at least one metal ion selected from the group consisting of a magnesium ion, a zinc ion, a manganese ion and an aluminum ion.

**Claim 25. (new)** The black galvanized steel sheet according to claim 23, wherein the treatment solution contains the following components:

20 to 85 mass % of the phosphate ion,  
0.5 to 20 mass % of the vanadate ion,  
5 to 20 mass % of the metal ion,  
2 to 60 mass % of the  $\alpha$ ,  $\beta$ -unsaturated carboxylic acid, and  
1 to 20 mass % of the material comprising an unsubstituted or substituted glycoluril monomer.

**Claim 26. (new)** The black galvanized steel sheet according to claim 18, wherein the organic resin layer is formed by applying

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one paint selected from the group consisting of a polyester-resin paint, a fluororesin paint, a vinyl-chloride-sol paint, and an acrylic-resin paint.

**Claim 27. (new)** The black galvanized steel sheet according to claim 18, wherein the organic resin layer has a thickness of 0.1 to 4  $\mu\text{m}$ .

**Claim 28. (new)** The black galvanized steel sheet according to claim 18, wherein the unsubstituted or substituted glycoluril monomer is tetramethylolglycoluril.

**Claim 29. (new)** The black galvanized steel sheet according to claim 18, wherein the black coating layer has a thickness of 0.05 to 0.2  $\mu\text{m}$ ; the composite layer has a coating weight of 0.05 to 0.5 g/ $\text{m}^2$ ; and the organic resin layer has a thickness of 0.5 to 2  $\mu\text{m}$ .

**Claim 30. (new)** The black galvanized steel sheet according to claim 18, wherein the organic resin layer is formed by applying a polymer-resin paint.

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**Claim 31. (new)** The black galvanized steel sheet according to claim 28, wherein the organic resin layer is formed by applying a polyester-resin paint.

**Claim 32. (new)** The black galvanized steel sheet according to claim 29, wherein the organic resin layer is formed by applying a polyester-resin paint.

**Claim 33. (new)** The black galvanized steel sheet according to claim 32, wherein the unsubstituted or substituted glycoluril monomer is tetramethylolglycoluril.

**Claim 34. (new)** The black galvanized steel sheet according to claim 33, wherein the metal ion in the composite coating layer is at least one metal ion selected from the group consisting of magnesium ion, a zinc ion, a magnesium ion and an aluminum ion.